## ABSTRACT

Provided are novel processes for the efficient production of L-epi-2-inosose and epi-inositol which are useful either as various medicines or intermediates for the syntheses of various medicines. In the processes, there is used inexpensive myo-inositol as a starting compound. That is, there is now developed a new process which comprises reacting myo-inositol with a gram-negative bacterium capable of converting myo-inositol into L-epi-2-inosose, and thereby producing L-epi-2-inosose by conversion of myoinositol into L-epi-2-inosose. Further, a novel process is provided, which comprises reacting the so produced L-epi-2inosose with a reducing agent made of an alkali metal boron hydride or any other alkali metal hydride in an aqueous reaction medium, to produce epi-inositol and myo-inositol, and then isolating epi-inositol from the resulting reaction product composed of the epi-inositol and myo-inositol.

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